

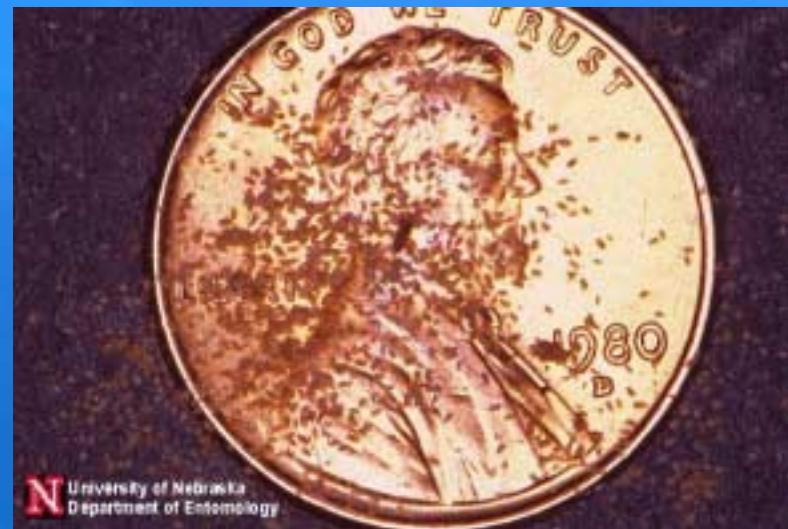
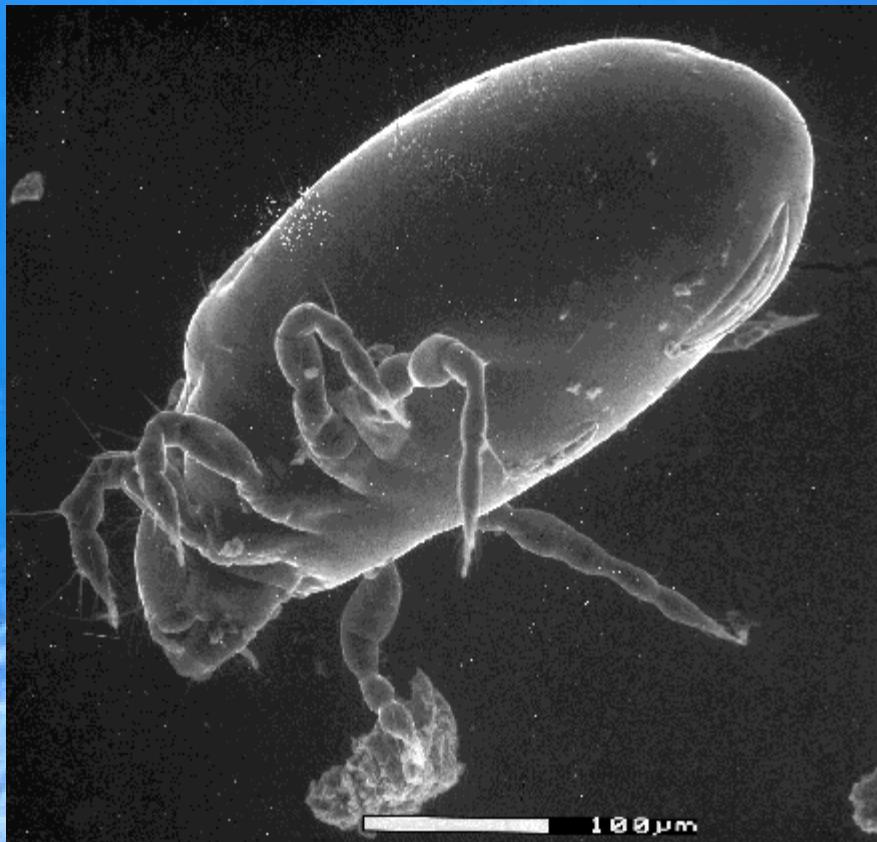
A Compleat Field Guide to the Aquatic Macroinvertebrates

Dave Gibson
April 25, 2003

Major Groups

- Non-Insects
 - Mites
 - Crustaceans
 - Molluscs
 - Worms
 - Flatworms
- Insects
 - Mayflies
 - Stoneflies
 - Caddisflies
 - Dragonflies
 - Beetles
 - Bugs
 - Flies

Acari - Mites



- CTV = 5-8
- FFG= P

Amphipoda - Scuds



- CTV = 6-8
- FFG = CG

Decapoda - Crayfish



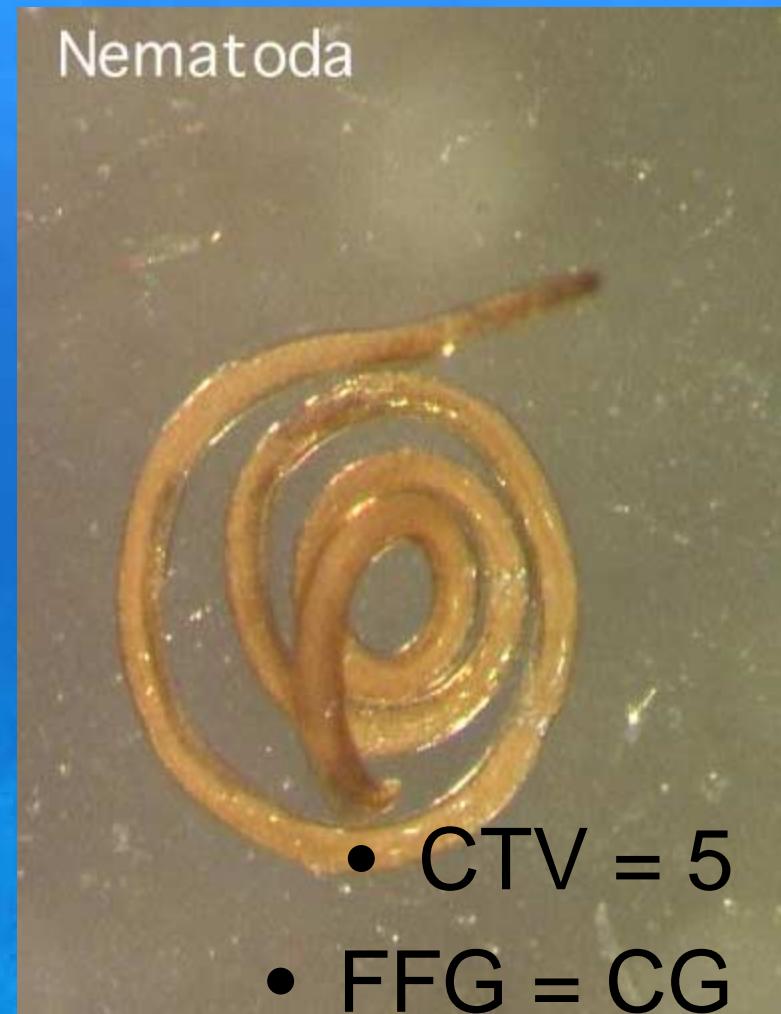
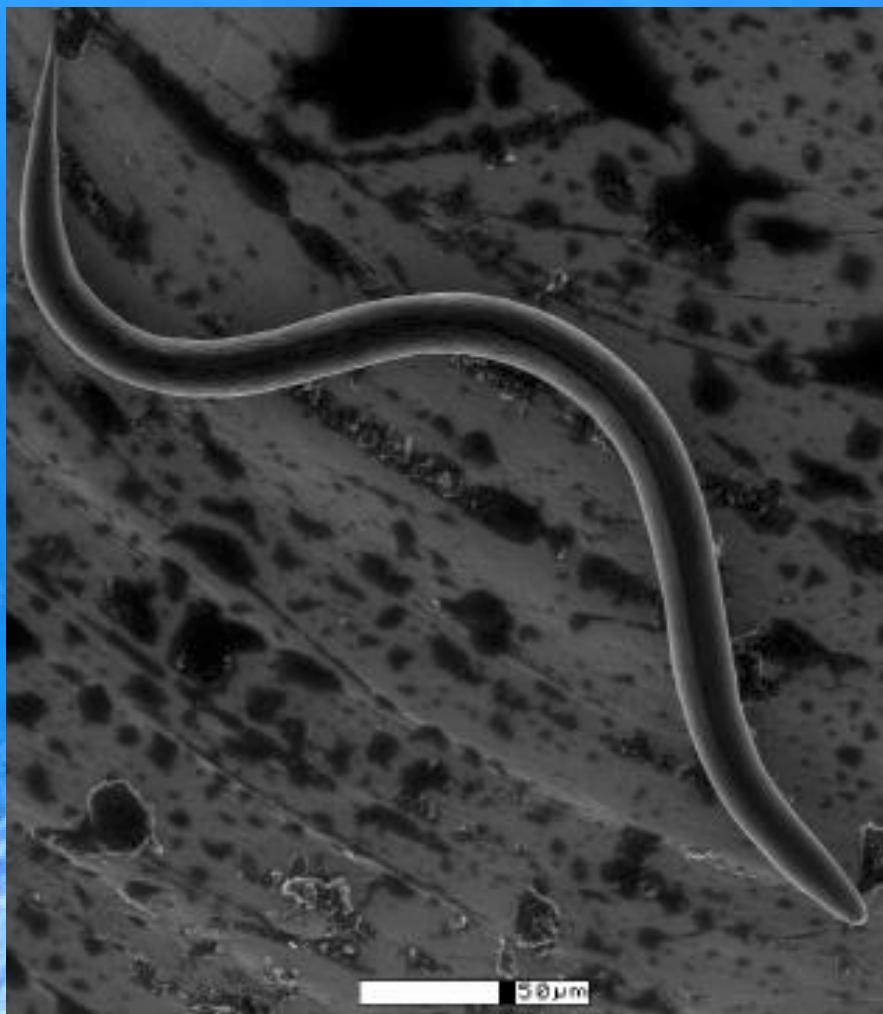
- CTV = 8
- FFG= SH/CG

Isopoda - Sowbugs



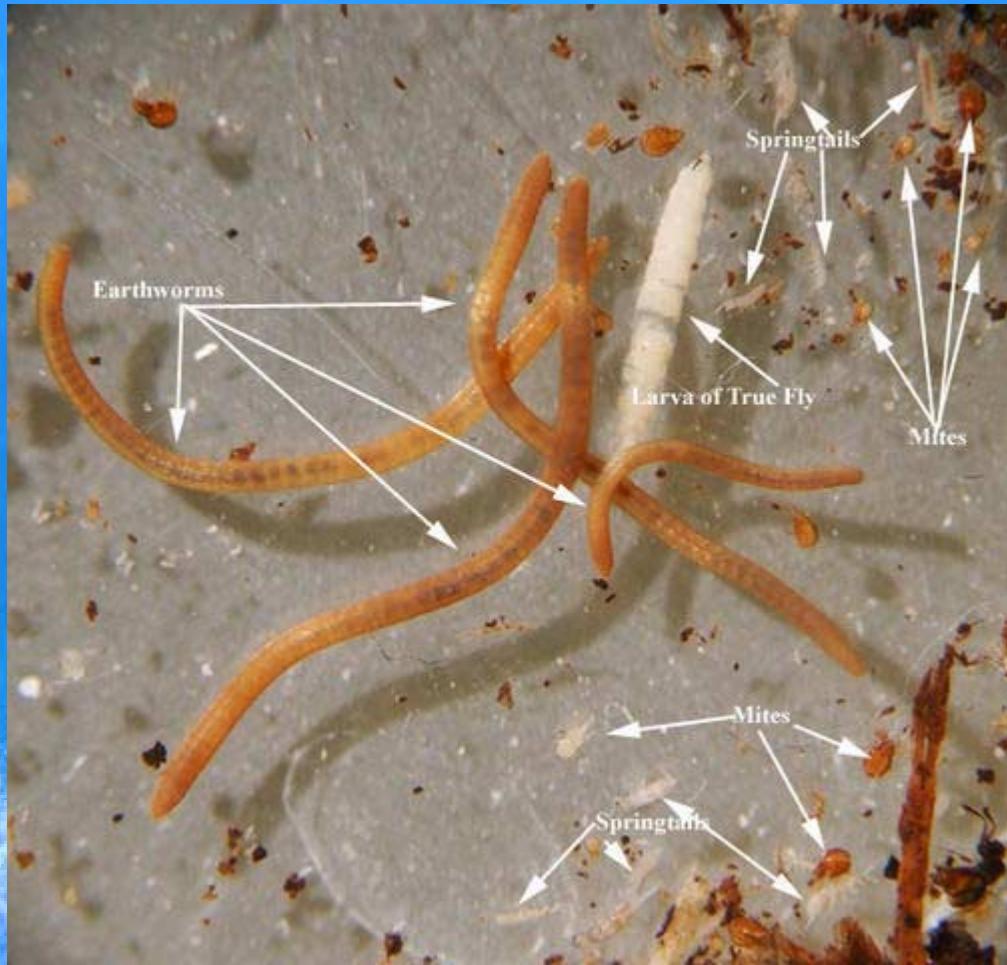
- CTV = 8
- FFG = CG

Nematoda - Round Worms



- CTV = 5
- FFG = CG

Oligochaeta - Worms



- CTV = 5-8
- FFG = CG/PA

Mollusca - Bivalves



- CTV = 10
- FFG = CF

Mollusca - Gastropoda

Gastropoda
Snail



- CTV = 5-8
- FFG = SC

Turbellaria - Flatworms



- CTV = 1-4
- FFG = P/OM

Insects!

- Majority of taxa in samples in healthy streams
- 8 Major Orders
- High degree of discriminatory power

Ephemeroptera Mayflies

7 major families
EPT Taxa

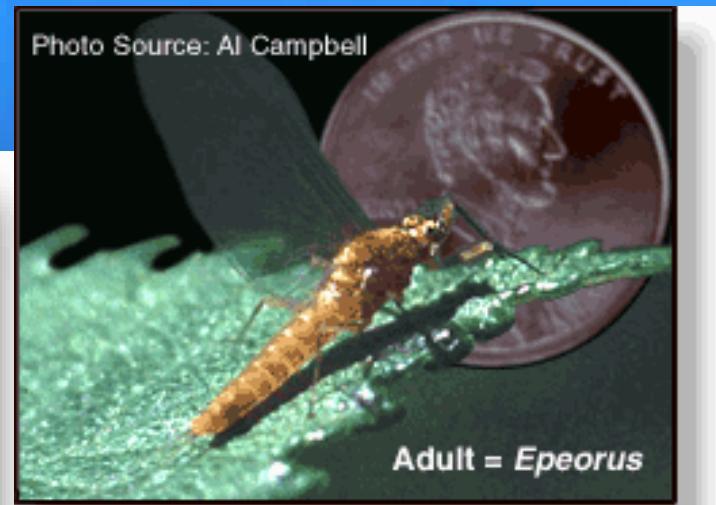
Baetidae



Larva = *Baetis tricaudatus*

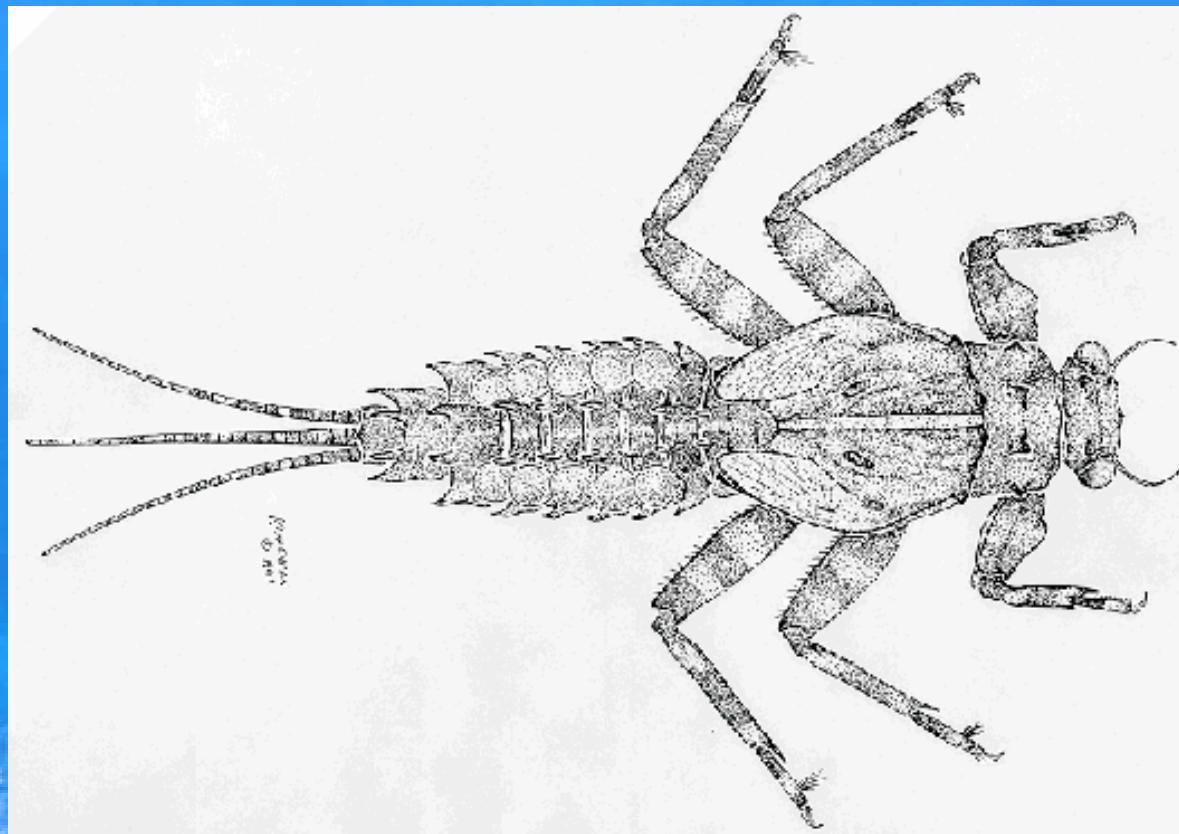
- CTV = 4-5
- FFG = CG

Heptageniidae



- CTV = 0-4
- FFG = SC

Ephemerellidae



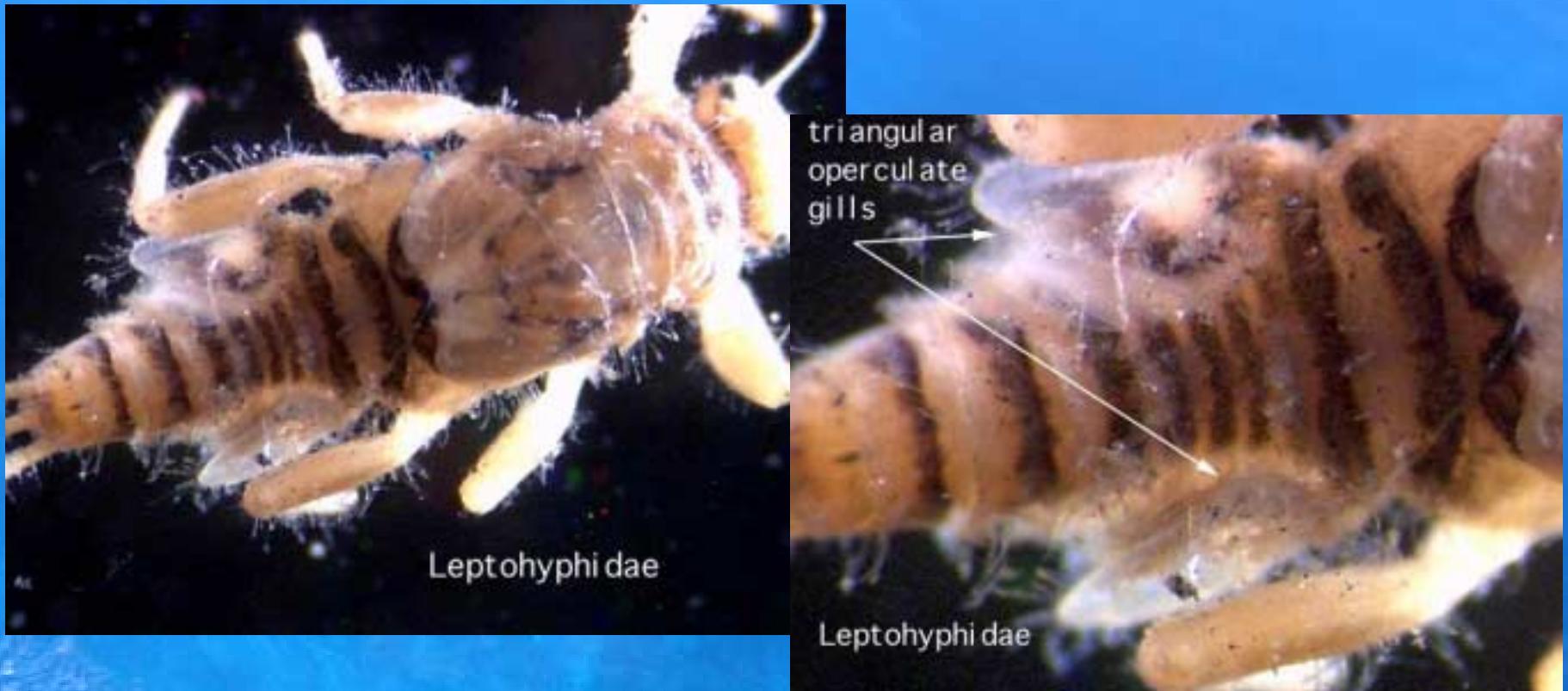
- CTV = 0-2
- FFG = CG/P

Siphlonuridae



- CTV = 7
- FFG = CG

Leptohyphidae



- CTV = 4
- FFG = CG

Leptophlebiidae



- CTV = 2-4
- FFG = CG

Leptophlebiidae



Plecoptera Stoneflies

7 major families
EPT Taxa

Capniidae



Capnia sextuberculata male



- CTV = 1
- FFG = SH

Chloroperlidae

Sweltsa coloradensis, nymph



- CTV = 0-1
- FFG = P

Chloroperlidae

Sweltsa coloradensis



Nemouridae

Malenka sp., nymph



- CTV = 1-2
- FFG = SH

Taeniopterygidae



Taenionema pallidum, adult

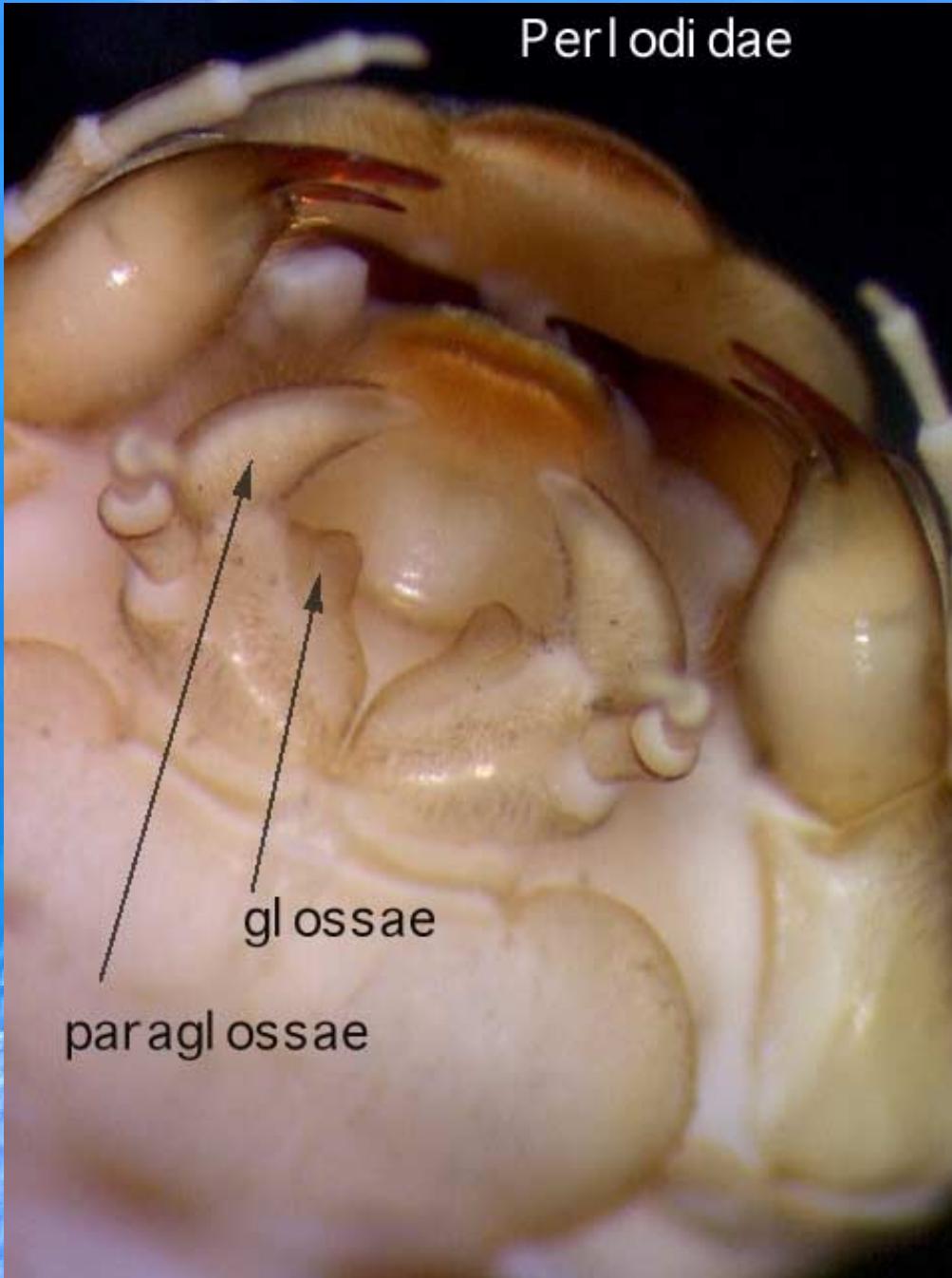


- CTV = 2
- FFG = OM/SH

Perlodidae



- CTV = 2
- FFG = P



Perlodidae

Perlidae



- CTV = 1-3
- FFG = P

Perlidae



- *Classenia sp.*

Pteronarycidae



- CTV = 0-1
- FFG = OM

Trichoptera Caddisflies

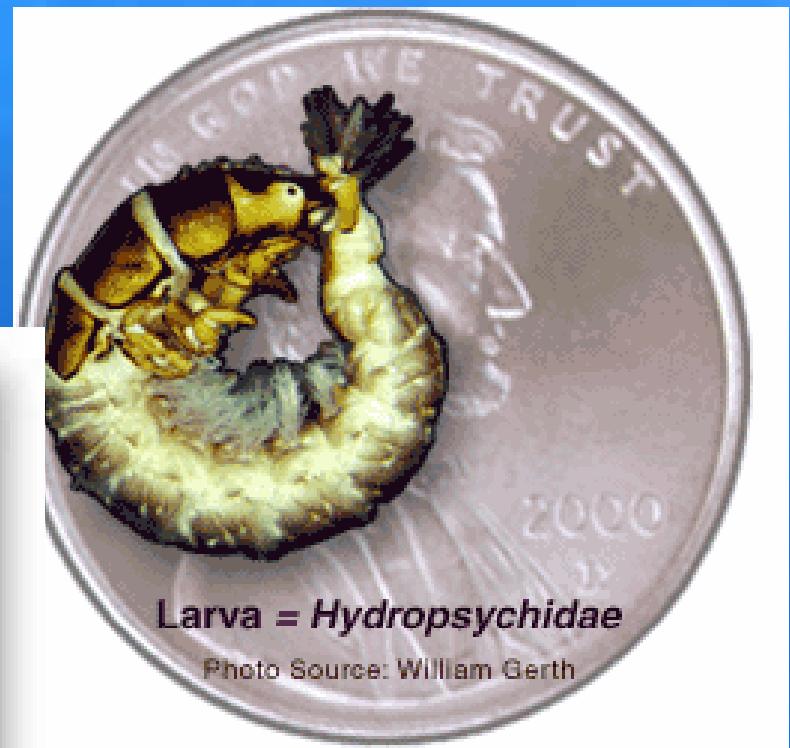
14 major families
EPT Taxa

Rhyacophilidae



- CTV = 0
- FFG = P

Hydropsychidae



- CTV = 0-5
- FFG = CF/P



- *Hydropsyche* sp.

Helicopsychidae

Helicopsychidae

- *Helicopsyche* sp.



Figure 3 - Lateral view of
Helicopsyche sp. larvae
(*Helicopsychidae*)

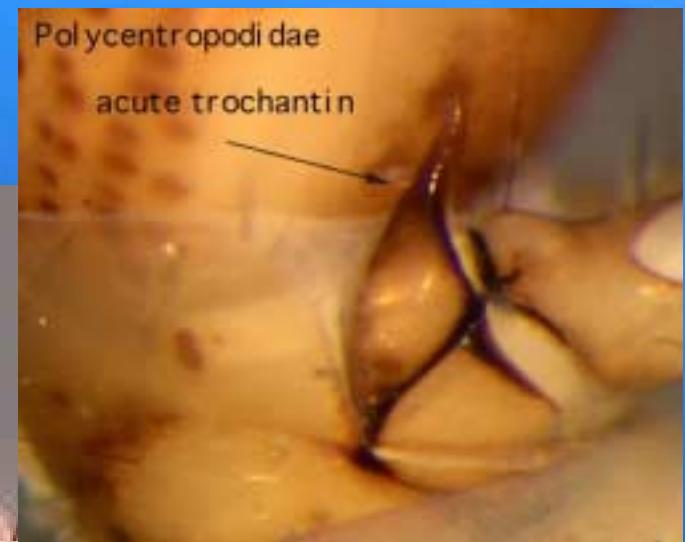
- CTV = 3
- FFG = SC

Philopotamidae



- CTV = 2-4
- FFG = CF

Polycentropididae



- CTV = 6
- FFG = P

Glossosomatidae



- CTV = 0-2
- FFG = SC

Hydroptilidae

Hydroptilidae



- CTV = 4-8
- FFG = PH/SC

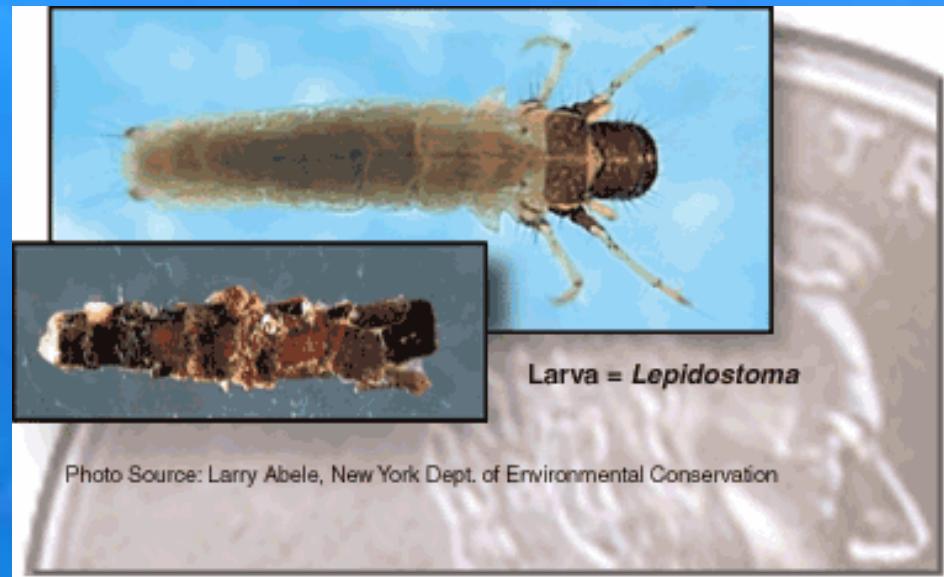
Brachycentridae

Brachycentridae



- CTV = 1-3
- FFG = OM

Lepidostomatidae



- CTV = 1
- FFG = SH

Leptoceridae



- CTV = 3-8
- FFG = OM/SH/P

Limnephilidae



- CTV = 0-4
- FFG = SH/OM

Psychomyiidae



- CTV = 2
- FFG = SC/CG



- *Discosmoeces* sp.